



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Young et al

Parent Serial No: 09/873,367

Art Unit: 1631

Filed: 5 June 2001

Examiner: C. L. Smith

Title: CANCER GENE DETERMINATION AND THERAPEUTIC  
SCREENING USING SIGNATURE GENE SETS

Docket No: 689290-64

29 April 2003

BOX SEQUENCE  
U.S. Patent and Trademark Office  
P.O. Box 2327  
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**Statement Under 37 CFR 1.821(f) and (g)**

Sir:

Applicant hereby asserts that the copies of the Sequence Listing filed herewith and the CRF form (on CD-ROM) filed herewith are all identical and are the same sequences as the sequence listing filed originally with the application so that no new matter has been added.

Respectfully submitted,

Alan J. Grant

Reg. No. 33,389

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Roseland, NJ 07068

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Applicant's copy

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TECH CENTER 1600/2900

## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/873,367B  
Source: 1600  
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S/186

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1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
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DATE: 03/05/2003

TIME: 12:07:50

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 4 Soppet, Daniel  
 5 Endress, Gregory  
 6 Augustus, Meena  
 7 Ebner, Reinhard  
 8 Carter, Kenneth  
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11 Sets  
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 15 <140> CURRENT APPLICATION NUMBER: US/09/873,367B  
 15 <141> CURRENT FILING DATE: 2001-06-05  
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14788	gcaataactac	agacagatgt	gcctgaggag	aagccattcc	aacctgaact	cccaaaggaa	6000
14790	gggagaatag	atgatgaaga	acctttcaaa	attgttagaga	aagtaaaggaa	agacttagtg	6060
14792	aaagtttagt	aaatccttaa	aaaggatgt	tgtgttagata	ataaaaggatc	acccaaatca	6120
14794	ccaaagagt	acaaaggaca	ctctcctgaa	gatgactgga	tagaattttag	ttcggaaagaa	6180
14796	atccggaaag	ccagacaaca	agctgctgcg	agccagtctc	catctctgccc	agagagagtg	6240
14798	caagtaaaag	aaaaagccgc	ctccgaaaag	gattataact	tgaccaaagt	tattgattac	6300
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14802	aagaaggatg	gtgagggagg	acagaaaaga	gtttaaaac	cagcaattgc	tttgcaggaa	6420
14804	cacaaactca	aaatgcctcc	agcctccatg	aggacttcca	cctctgagaa	agaattgtgt	6480
14806	aaaatggctg	attccttttt	tggaaacagat	actattttag	agtctcctga	tgactttct	6540
14808	caacacgacc	aagataaaaag	tccctgtct	gacagtggct	ttgaaacaag	aagtaaaaag	6600
14810	acaccttcag	ccccacaaaag	cgctgaaacg	actggtccta	aaccactttt	tcatgaagtt	6660
14812	cccatccctc	ctgttattac	agaaacaaga	actgaagtgg	ttcatgttat	caggagctat	6720
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## RAW SEQUENCE LISTING

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Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

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14820	ggcatgcgt	ttaaagaaga	gactcacata	accacaacca	ccagaatggt	ttatcattct	6960
14822	ccaccaggcg	gtgaagggtgc	atctgaaaga	attgaagaaaa	ccatgtcagt	ccatgacatc	7020
14824	atgaaggcct	ttcagtcgg	gcgggatcct	tccaaagaac	tggcaggtct	gtttgaacat	7080
14826	aagtccggcag	tgtctccaga	tgttcacaag	tctgctgctg	aaacctcagc	ccagcatgca	7140
14828	gagaaggaca	accaaata	acccaaactg	gagcgtataa	tagaagtcca	catcgaaaaa	7200
14830	ggttaaccaag	ctgagccac	tgaagtctt	atttagagaaa	ccaaaaagca	tccagaaaaa	7260
14832	gaaatgtatg	tatatcgaaa	agacttatcc	cggggagata	ttaacctaaa	agattttctg	7320
14834	ccagaaaaac	acgatgctt	tccttgc	gaggaacagg	gtcagcaaga	agaagaagaa	7380
14836	cttactgctg	aagagtctt	gccttctt	ctggagtctt	ccagagtaaa	cactcctgtg	7440
14838	tcccaagaag	aagatagccg	ccctagttct	gctcaactca	tatctgatga	ctcttataaa	7500
14840	acattgaagc	ttttgagtca	acactcaata	gaataccatg	acgatgagtt	gtcagaacta	7560
14842	agaggggagt	tttacaggtt	tgctgagaaa	atgcttctgt	cagaaaagct	agatgtgtct	7620
14844	cattctgata	ctgaggaatc	ggttacagac	catgcaggac	cccctagctc	agagttacag	7680
14846	gggtctgata	agcgggtccag	agaaaaata	gccactgccc	ccaaaaaaga	aattctotcc	7740
14848	aaaatctata	aatatgtttc	tgaaaatggt	gtaggtaaag	tgtctaaaga	tgagcatttt	7800
14850	gataaaatgta	cagtgttgc	ctattctggc	aatgttagta	gtccaaaaca	tgccatgtgg	7860
14852	atgcgttta	ctgaggacag	attagacaga	ggttagagaga	agttgatata	tgaagataagg	7920
14854	gtggacagga	ctgtgaagga	ggctgaagaa	aaactgactg	aagtgtcaca	gtttttcgt	7980
14856	gacaaaactg	aaaagctaa	tgatgaactg	cagtcccgag	agaaaaaggc	acgcccctaaa	8040
14858	aatggcaaaag	aatattcttc	tcaaagccct	accagtagca	gccctgagaa	agtgtactg	8100
14860	acagaactgc	tggcatccaa	tgatgatgg	gttaaggcaa	gacagcatgg	ccctgatgg	8160
14862	caaggcttcc	ccaaaggccg	ggagaaggca	cccagctgc	ccagcagccc	agagaagatg	8220
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14866	cagagcaaaag	caccagatgg	gccccagttct	ggattccagc	tcaaaacaatc	taaactcaatg	8340
14868	tccatttagat	taaaaatttga	acaaggcaca	cacgaaaaaa	gtaaggacat	gtctcaagaa	8400
14870	gacagaaaatg	cagatggcca	gtccagaatc	ccagttaaaa	aaatacagga	gagcaagcta	8460
14872	cccgcttacc	aagttttgc	tagaaaaaa	cagcagaagg	ccatagacct	cccagatgaa	8520
14874	agtgtatctg	tgcaaaaaaga	ttttatggta	ttaaaaacca	aagatgagca	tgcccaaagc	8580
14876	aacgaaattt	ttttaatga	ttctgctct	gataatgtg	aaaaacagag	aactgaaatg	8640
14878	tcaagtaaag	caatgcctga	ctcttttct	gagcagcagg	ctaaagactt	ggcatgtcat	8700
14880	ataacctcag	atttagcaac	tagggacca	tgggacaaaaa	aggtctttag	aacatggag	8760
14882	agttcgggag	ccactaaca	taagtcctc	aaagaaaaac	tttcgcattt	acttgcatt	8820
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E--> 14901	ggaaaggaaat	ctccctctag	tgatgtattc	gaccacagtc	ccattgtatgg	attggaaaaaa	9420
E--> 14903	ctcgaccac	tagcccagac	agagggaggg	aaagagataa	aaacttacc	cgtttatgtc	9480
E--> 14905	agtttgcac	aagtggggaa	gcaatatgaa	aaggagatac	aacaaggagg	tgtaaaaaaaa	9540
E--> 14907	atcataagtc	aggaatgtaa	gacagtacaa	gaaaccagg	ggacccttta	tacaactaga	9600
E--> 14909	cagaaaaagc	aacctccctc	tcccaaggt	agtccagaag	atgatactct	agagcaagta	9660
E--> 14911	tcctttctag	acagctctgg	gaaaagccct	ttaacccag	aaacacccag	ttcagagggaa	9720

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## RAW SEQUENCE LISTING

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Output Set: N:\CRF4\03052003\I873367B.raw

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 E--> 14915 cccagccaa ttcccggagg ttctgaggag tcagaggagg aggaacaggc caagtcaacc 9840  
 E--> 14917 tcccttaagc agactacagt ggagggaaaca gcagttgagc gtgaaaatgcc taatgacgtg 9900  
 E--> 14919 agcaaagact ctaaccaaag accaaaaat aacagagttt cctatattga atttccccct 9960  
 E--> 14921 cctccaccac tggatgcgga ccagatttag tcagataaga agcatcatta tctcccgaaa 10020  
 E--> 14923 aaagagggtt acatgattga agtcaatctg caagatgagc atgacaagta ccagctggct 10080  
 E--> 14925 gaacctgtca ttagagtgca gccaccttca ccagttcctc ccggggcaga cgtcagtgt 10140  
 E--> 14927 tcaagcgatg acgaatctat ttatcagcca gtcccaggta aaaaatatac cttcaaattta 10200  
 E--> 14929 aaggaagtgg acgatgaaca aaaagaaaaa cccaaagctt ctgctgaaaa ggcttccaac 10260  
 E--> 14931 cagaaagaac tggaaaagtaa tggatctgga aaagataatg aatttggct tggccttgat 10320  
 E--> 14933 tcacctcaga atgaaaattgc ccagaatggg aacaacgacc agtccatcac agagtgtcc 10380  
 E--> 14935 attgcccacca cagcagagtt ttctcatgac acggatgcca cagagatcga ctctctggat 10440  
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 E--> 14943 gaggacaagc caccttctaa aagttctca tctgaaaaga ctcctgataa gactgatcag 10680  
 E--> 14945 aagtcaagggg cccagttctt cacactggaa ggcagacatc ctgacagatc agtgtttcct 10740  
 E--> 14947 gatacttact tcaagttacaa agtagatgaa gaatttgcct ctccttttaa aacagtagct 10800  
 E--> 14949 accaaaggc tagattttga cccttggct aataaccgag gggatgatga agtttttgac 10860  
 E--> 14951 agtaaatcac gggaaagatga aactaagcca tttgggctgg cggtagaaga ccgctctcca 10920  
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 E--> 14955 gaggcttaacc cttcccatt tcatgaagga aaaatgttt agatgactcg cagtggcgt 11040  
 E--> 14957 attgacatga gcaagaggaa ttttggtaa gagaggctcc aattttcca gattggtgag 11100  
 E--> 14959 catactctg aagggaaagtc aggggaccag gggaaaggaa ataaaagtat ggtcaactg 11160  
 E--> 14961 acaccacgc cacagtcaagg ggacaccact gttagaaacca atctagagag aatgttagag 11220  
 E--> 14963 acacctacag tggAACCTAA ccccaagcatc ccgaccagcg gagagtgtca ggaaggcaca 11280  
 E--> 14965 tccagtagtg gctccctgga gaaatcagca gcagccacta acacctctaa agttgacccc 11340  
 E--> 14967 aagtgcgcgca cgcctataaa aatgggatt tctgcattca ccatgaccat gaagaaagaa 11400  
 E--> 14969 ggccctggag aaataacaga taagatagaa gcggtgtatga ccagggtgtca gggatttagaa 11460  
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 E--> 14973 gaaaaacatg atttcaaaa agataactt aataacaaca acaatttggta ttcttccact 11580  
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 E--> 15005 gtagccgatc acctgggact tagtggaca gaaactggcaa gggactgaa tttttcagt 12540  
 E--> 15007 gatgaaatca atcaaatacg tggaaaaat ccaaattctt taatttctca gagcttcatg 12600  
 E--> 15009 ttataaaaaa aatgggttac cagagacgga aaaaatgcca caactgatgc cttacttcg 12660

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Output Set: N:\CRF4\03052003\I873367B.raw

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 E--> 15015 gttgatgggtt ggcagaatga gacatcaagt gaaaacctag agtccctgcgc tcaagctcga 12840  
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 E--> 15019 attacctcat atctcaaagg agaagctggc aaatttgaag caaatgaaag ccatacagaa 12960  
 E--> 15021 atcactccag aagcaaagac aaaatcttac tttccagaat cccaaaatga ttaggaaaaa 13020  
 E--> 15023 cagagtacca agggaaactct gaaacccaaa atacatggat ctggtcatgt tgaagaacca 13080  
 E--> 15025 gcatcaccac tagcagcata tcagaaatct ctagaagaaa ccagcaagct tataatagaa 13140  
 E--> 15027 gagactaaac cctgtgtgcc tgcgtatg aaaaagatga gtaggacttc tccagcagat 13200  
 E--> 15029 ggcaagccaa ggcttagcct ccatgaagaa gaggggtcca gtgggtctga gcaaaaagcag 13260  
 E--> 15031 ggagaaggtt ttaaggtgaa aacgaagaaa gaaatccggc atgtggaaaaa gaagagccac 13320  
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 E--> 15079 gaaaaaccat acactggatg acctagtcga ttatattaaatcgttataa ttgtgtttaaa 14760  
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 33223 <210> SEQ ID NO: 313  
 33224 <211> LENGTH: 1008 998  
 33225 <212> TYPE: DNA  
 33226 <213> ORGANISM: Homo sapiens  
 33228 <400> SEQUENCE: 313  
 33229 cccgaatttt cccgctcgaa tgccggcag ccgtggcgc tagagcgttc ctccccagct 60  
 33231 cgaatccccg gggcgaggc ggctagagcg tcgcctcctc ccggggacc gcgtgtgacc 120  
 33233 ttccagcccc cgaccgatg ctgcggcgg ccgctcgccc cctgtggggg ccttgcattt 180  
 E--> 33234 cgctgcgttc cgcccttgcac ggcgacaggt ggcattgtgtc tgtaaccgtgc 240 230  
 E--> 33236 gacatatgag gaggcaggc catcagaggt gtgaggccct cgctggatca cccctggata 300  
 E--> 33238 acggcccccgg gtagtacccccc cccaaatgcac agcagctgtt ccaggacatc gcaagccctca 360  
 E--> 33240 ctcttcttggaa aatctcagac ctcaacgac tcctgaagaa aacgttgaag atccaggatg 420  
 E--> 33242 tcgggcttgc gccgatgggt ggtgtatgt ctggggctgt ccctgctgca gcaagccagg 480

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## RAW SEQUENCE LISTING

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Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

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E--> 33248	gcatcaacct	cgtccagga	aagaagctgg	tggagtcct	gccccaggaa	atcaaagcca	660
E--> 33250	atgtcgccaa	agctgaggcg	gagaagatca	aggcggccct	ggaggcggtg	ggcgccaccg	720
E--> 33252	tggttctgga	gtagcctcca	gctcgagga	cttgtgttca	ggggcctgg	gccccggcga	780
E--> 33254	ggtccgccc	tcccgtggc	actggctccg	cccccagcac	caggcgccca	gtggagccgt	840
E--> 33256	ttgggagaat	tgcctgcgcc	acgcagcggg	ccggacaggc	cgcacagacc	tactgtggcg	900
E--> 33258	ggagggaggg	gccccgtgctg	cctggtgcacg	gcacccggaa	gcccaccagg	acgcgcacc	960
E--> 33260	ggtcaatgtg	cctctggtgg	ctgctgagaa	aaatacactg	tgcaagtc		1008

33811 &lt;210&gt; SEQ ID NO: 320

33812 &lt;211&gt; LENGTH: 6492 6482

33813 &lt;212&gt; TYPE: DNA

33814 &lt;213&gt; ORGANISM: Homo sapiens

33816 &lt;400&gt; SEQUENCE: 320

P. 10

N.O.S.

Off

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33819	cccgccctt	agcttctcct	gtcactggga	catcacaaca	gcacccacct	tagggcaact	120
33821	caggccaggg	aagtgggtgc	tgcctcacct	cccaatgtgc	gtccctcctgg	gcctggagcc	180
33823	tcagggcctc	tggaaggagg	aagtgagcgc	ctctggcag	gattcttggg	aggcctggga	240
33825	gagcaaggga	agcgcacaa	gctgagcaga	tttctggac	tgatccatgg	ccctttctct	300
33827	ctcacccccc	aggagggtgg	ccccctccac	ccccagca	tcccacctgg	tcgggtcccg	360
33829	acggcccttc	cccgaggagg	gtggagcagc	agaaaaagggtg	gggctggggc	ctgggtgggg	420
33831	aaccttagcc	gtgccagag	ttccatatgt	tctggAACCC	ttgactctta	gagttcagaa	480
33833	cccaacccaa	ttgcagttt	cagaatgttc	aagaaacttc	tgacactcag	agttgcagaa	540
33835	cctcctggtc	cctgcagatt	cctggaaatc	agaatatgtt	ggttggaaaga	atcttgcggc	600
33837	tgggcgttgt	ggctcagcgc	tgtatccca	gcactctgg	aggccgaggc	gggcagatcg	660
33839	cctgaggtca	ggagttttag	accagctgg	ccaacatggc	gaaatcccgt	ctctactgaa	720
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33843	gaggcaggag	aatcgcttg	accggggagg	cagagggtgc	agttagccaa	gatcgagcca	840
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33847	gcattttgt	attcggtgtt	cctgacagtt	tagtgactgg	gatctcgcat	cctgatctct	960
33849	ccctgtcgct	gcctgcctt	ccatcccccc	tactctcacc	cagccccctt	cttggttttcc	1020
33851	taggggagga	aggcttgggt	gagtattagg	agccagccac	cctggagacc	tctgagagag	1080
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33875	aaagctgaga	gtggtcgaag	cgagggtgg	ggactcatgg	aagagatgaa	cgccatgctg	1800
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33879	ccagtcagag	gagggtcaca	attcctgttt	agtttggttt	ttttggtgaa	tgttccccct	1920
33881	ttgataacca	ggtttgggtat	ataatgggtgg	ggtttggcat	gaaatgcctg	aggcttgccaa	1980
33883	ccacctaggt	agcctgtaga	tgttctaaaa	cccagaattt	tagaaccgta	ggagatctt	2040
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## RAW SEQUENCE LISTING

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33897	ggctggctt	gaactcttga	cctcaagaga	tccacctgt	tcagcctctc	aaagtgttgg	2460
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33997	catccc	gggcccgtcc	ctctgctgg	gatgcaccaa	tgaacccac	aggaaggggg	5460		
33999	aaggaaggag	gaaatttac	attccctgt	tctagattca	ctttaacgct	taatgc	5520		
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54654	ttggg	attt	ggg	aggc	ttt	gcagg	aaaga	gggaa	180
54656	gt	aaac	tt	gg	agag	cc	gttcc	actt	240
54658	tgtt	taacca	c	actt	tgc	tct	c	tc	300
54660	tctt	ggg	gaga	gg	aggat	gtt	gg	atcc	360
54662	tg	ctt	gg	cc	gtat	gg	gg	atca	420
54664	aagaaa	aaatg	ttt	ggat	gggg	gg	gg	atc	480
54666	ttc	at	ttt	ttt	ggat	gtt	gg	atcc	540
54668	agg	ttt	ttt	ttt	ggat	ttt	gg	atcc	600
54670	tatt	gaa	acc	tga	actt	ttt	ggat	gg	660
54672	aa	acc	aa	at	ccac	ttt	ggat	gg	720
54674	gt	aggat	gtt	tacca	acc	ttt	ggat	gg	780
54676	c	cttcc	cc	cc	cc	cc	cc	cc	840
54678	tga	aaaa	aaat	cc	cc	cc	cc	cc	900
54680	tggat	actt	cc	ttt	ttt	ttt	ttt	ttt	960
54682	ctg	aa	gtt	cc	cc	cc	cc	cc	1020
54684	act	c	cc	cc	cc	cc	cc	cc	1080
54686	acatt	gtt	taa	acc	aa	ac	ttt	cc	1140

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54700	ctgacaacat	gcagggcgtg	ttggagagtt	tcctgggcac	tgctgtctct	ggagccatct	1560		
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## RAW SEQUENCE LISTING

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 E--> 63353 gagggaggaa cctctgtgag gtcagtgtgg gggcaagggtt agcgtggagc taggcatttc 1080  
 E--> 63355 tcccacaatg acccttcttgc gccccatgtg aagcgttgc cctggcatca ccctggggc 1140  
 E--> 63357 agtgcattt tccgtgtgg aggttctat acagccagtg accctaacaa ggaggatatc 1200  
 E--> 63359 agagcagtgg agttgtatgc ccaggctggg cattcagatg ttgtcttgc agacactatg 1260  
 E--> 63361 gatgagctgc ccaggcttgc agatgtccaa ttggccacc tgaggctgag gcccctctgc 1320  
 E--> 63363 ctgcctgatt catctgttagc tgaggataaa tgcttgc cctgaaagga acacgatggc 1380  
 E--> 63365 tggactatgt cagggcttgc ttgcggatcc cagtgacat ttgcgttata gtgacatcca 1440  
 E--> 63367 ggggtcggtt tggatattt caaggctcc gttttctcc ttttcttgc ttgtgtctgg 1500  
 E--> 63369 cagtcctcc agcgtttcc agctgatattt gaattctctg agttttctt tcttgcctt 1560  
 E--> 63371 catgacagtgc tggggcttgc tgacaccctt accttcttgc gaaatacccc ctgggagcgc 1620  
 E--> 63373 ggaaagcaga gcccacaggc cagtgacttc tatttttgc tcgtgtttt ttttccattt 1680  
 E--> 63375 agatgtactc tctgaagttt ggtcttgcattt tggtttatgc gaagtggaggt ctgtgagtg 1740  
 E--> 63377 ggagggggag atttatttgc attttcaggc cagactttt gcccacatc tttccatggaa 1800  
 E--> 63379 taagaggtga gaatctcatg atttgcattt agatgtggga ggattgtgtg taaccatcc 1860  
 E--> 63381 ttttcttgc tccctgtcc agttaaactc ctatacacaa gtctacaccc caggataactc 1920  
 E--> 63383 cagccctccag ctgggaactc tttaaccttgc cagctgtctg tctggactg ggatttacgt 1980  
 E--> 63385 tatacgatgc cacagataact acaattccag aatcctggct atgacccaga acactgtcca 2040

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003

TIME: 12:07:54

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

E--> 63387 gattcctggc tccctagacc acagccaaga ttcatggtc ctggacccccc cagtttgtg 2100  
 E--> 63389 tggctttct ctagaggaga attgacccccc ctgaatcage tctgtcttg gcgggacagt 2160  
 E--> 63391 cttccctgc tggcagtctc ttctcggtt ctcctcgac ctgttatctc ctctgaaagc 2220  
 E--> 63393 tggctgacca gaaatgggtt ctccctcac attggggagc ttggccctta cctccagggc 2280  
 E--> 63395 tgctgctgcc tgggtatctg ggacccaga tcaggctctg gagacgctgc tacctgaggg 2340  
 E--> 63397 gaaggctga ggtccaggta agaaggaaa atagactggg agtgggacaa gggacttgac 2400  
 E--> 63399 tctgtgaac cagatgaaca ggagctggaa aggcaaggag ctgaagcctc tgggagttctg 2460  
 E--> 63401 ggaagtgaag ttctactctt cttgcacatca aacaagggtt gggagtgtag gaggtgcggg 2520  
 E--> 63403 aaagtcttg tggcttagat taagtggat ttagggcata gctaaaggg gaaacagaat 2580  
 E--> 63405 taaagacacc agaagtagca gagaagcagg gggccagagc tacaacagta ttcttctctg 2640  
 E--> 63407 ttcccttttgc ctcctccccc agatgggcct ctcatctccc acaatctctg gctccaggaa 2700  
 E--> 63409 tgagctatcc catcttcagg agtattacg gaaaggacac caagaatatac ttctgaggat 2760  
 E--> 63411 cactccaaga aaagagatcc acataccatt ctcacatccca ctgaaaattgc tggcattctc 2820  
 E--> 63413 aaaggcaggc cagagggggc tctgggttag agggagggtt ctgtctaattc tttttttttt 2880  
 E--> 63415 cttttgtatc tgcacttgcg gcctcagctt tcatacttca gcccttaagt tcactaagaa 2940  
 E--> 63417 ggtctgagtt tctgtgcag atagtgggtgtaactgtcc aactcttgc ttgcttagtt 3000  
 E--> 63419 tctacaaaata tttttgttc ttgtcattt aaggattaag aaacaaaaac aatccagaaa 3060  
 E--> 63421 ttgatcggtt ttttagggc aatccatcc cttctggata accagatgtt aatcatgag 3120  
 E--> 63423 atcagagatg ctgttcatca gtcccaacaa gatggcctag aaatcgatt ctcacccgc 3180  
 E--> 63425 cttgctgctg cttaattcc aagttctatt tcttccctta tagtttcta tgggaatgag 3240  
 E--> 63427 gcggatacag gaaacaccct atctcctctg tattttgtt gtggaaatttc tatttaaggg 3300  
 E--> 63429 gctcattaaa gcatagtttatacac 3327

64203 &lt;210&gt; SEQ ID NO: 810

64204 &lt;211&gt; LENGTH: 2602 2592

64205 &lt;212&gt; TYPE: DNA

64206 &lt;213&gt; ORGANISM: Homo sapiens

64208 &lt;400&gt; SEQUENCE: 810

64209 gccgtgtcgc caccatggc ccgcacccgc cggccccgc gctgtttgc ggcgtgtccc 60  
 64211 tggcgctgtg cgcgctgtcg ctgcccgtcc ggcggccac tgcgtcgcc gggccatccc 120

E--> 64212 gccccagggc cgggtggcccg aggccggcccaacagcatg gtgggtggaaac 180 170

E--> 64214 accccgagtt cctcaaggca gggaaaggagc ctggcctgca gatctggcgatgtggagaatg 240

E--> 64216 tcgatctgtt gcccgtgcc accaaccctt atggagactt cttcacgggc gacgcctacg 300

E--> 64218 tcatcctgaa gacagtgcag ctgaggaacg gaaatctgca gtatgacctc cactactggc 360

E--> 64220 tggcaatga gtgcagccag gatgagagcg gggccggccgc catcttacc gtgcagctgg 420

E--> 64222 atgactacccatc gaaacggccgg gccgtgcagc accgtgaggt ccaggcgttc gagtcggcca 480

E--> 64224 cttccctagg ctacttcaag tctggctga agtacaagaa aggaggtgtg gcatcaggat 540

E--> 64226 tcaagcacgt ggtacccaaac gaggtgggtgg tgcagagact cttccaggc aaagggccgc 600

E--> 64228 gtgtggccg tgccaccgag gtacotgtgt cttggagag cttaaacaat ggcgactgct 660

E--> 64230 tcatcctgaa cttggccaaac aacatccacc agtgggtgtgg ttccaaacagc aatcggtatg 720

E--> 64232 aaagactgaa gcccacacag gtgtccaagg gcatccggc caacagacgg agtggccggg 780

E--> 64234 cccgagtgca cgtgtctgag gaggcactg agcccgaggc gatgtcccgatgtggcc 840

E--> 64236 ccaagccgc tctgcctgca ggtacccgagg acacccgccaa ggaggatgcg gccaaccgca 900

E--> 64238 agctggccaa gctctacaag gtctccaatg gtgcaggacatgtccgtc tccctcggtt 960

E--> 64240 ctgatgagaa ccccttcggcc cagggggccc tgaagtcaaa ggactgttttccatctggacc 1020

E--> 64242 acggcaaaaga tggaaaatc tttgtctggaa aaggcaagca ggcaaacacg gaggagagga 1080

E--> 64244 aggctccct caaaacagcc tctgacttca tcaccaagat ggactacccc aagcagactc 1140

E--> 64246 aggtctcggt cttccctgag ggcggtgaga ccccaactttt caagcagttc ttcaagaact 1200

E--> 64248 ggcgggaccc agaccagaca gatggccctgg gcttgcctta cttccaggc catatccca 1260

E--> 64250 acgtggagcg ggtggcccttc gacgcggccca ccctgcacac ctccactgccc atggccccc 1320

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003

TIME: 12:07:54

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

E--> 64252	agcacggcat ggatgacgat ggcacaggcc agaaaacagat ctggagaatc gaagggttcca	1380
E--> 64254	acaagggtgcc cgtggaccct gccacatatg gacagttcta tggaggcgac agctacatca	1440
E--> 64256	ttctgtacaa ctaccggcat ggtggccgcc aggggcagat aatctataac tggcagggtg	1500
E--> 64258	cccagtctac ccaggatgag gtcgctgcat ctgcccattct gactgctcag ctggatgagg	1560
E--> 64260	agctgggagg taccctgtc cagagccgtg tggccaagg caaggagccc gcccacccca	1620
E--> 64262	tgagcctgtt tgggtggaaag cccatgatca tctacaaggg cggcacctcc cgcgaggcg	1680
E--> 64264	ggcagacagc ccctgccagc accccctct tccaggtccg cgccaacagc gctggagcca	1740
E--> 64266	cccggtgtg tgaggatttg cctaaggctg gtgcactgaa ctccaacgat gcctttttc	1800
E--> 64268	tgaaaacccc ctcagccgccc tacctgtggg tgggtacagg agccagcgag gcagagaaga	1860
E--> 64270	cggggggccca ggagctgctc aggggtctc gggcccaacc tgtgcagggtg gcagaaggca	1920
E--> 64272	gcgagccaga tggcttctgg gaggccctgg gcgggaaaggc tgccctaccgc acatccccac	1980
E--> 64274	ggctgaagga caagaagatg gatgcccattt ctcctcgccctt cttgcctgc tccaaacaaga	2040
E--> 64276	ttggacgttt tggatcgaa gaggttcctg gtgagctcat gcaggaagac ctggcaacgg	2100
E--> 64278	atgacgtcat gcttctggac acctgggacc aggtcttgc ctgggttggaaaggattctc	2160
E--> 64280	aagaagaaga aaagacagaa gccttgactt ctgctaagcg gtacatcgag acggacccag	2220
E--> 64282	ccaatcggga tcggcggacg cccatcaccg tggtaagca aggcttgag cctccctcct	2280
E--> 64284	ttgtgggctg gttccttggc tggatgatg attactggc tggacaggg ttggacaggg	2340
E--> 64286	ccatggctga gctggctgcc tgaggagggg cagggccac ccattgtcacc ggtcagtgcc	2400
E--> 64288	ttttggaaact gtccttccct caaagaggcc ttagagcgag cagacgact ctgctatgag	2460
E--> 64290	tgtgtgtgtg tggatgtgtt gttctttttttt cagtatccaa aaatagccct	2520
E--> 64292	gcaaaaattc agatccctt caaaattgtc taaaatgtca gtgtttggaa attaaatcc	2580
E--> 64294	aataaaaaca ttttgaagtg tg	2602

70729 &lt;210&gt; SEQ ID NO: 967

70730 &lt;211&gt; LENGTH: 271

70731 &lt;212&gt; TYPE: DNA

70732 &lt;213&gt; ORGANISM: Homo sapiens

70734 &lt;220&gt; FEATURE:

70735 &lt;221&gt; NAME/KEY: misc\_feature

70736 &lt;222&gt; LOCATION: (1)...(271)

70737 &lt;223&gt; OTHER INFORMATION: n=a,t,g or c

E--&gt; 70740 &lt;400&gt; SEQUENCE: 967

70741	gtatggtttc gccatcatga cgcagtgtct cccagtgcc ctgttctccc tggtgggtt	60
W- <del>70742</del>	cacccagatg accatntggg ccaaggccaa gcacccgacg tacctgaagg agttccggaa	120
70743	ctacccggcc ctgcgcattgc ccatnatncc ctgcattgc tggatgtca cccctgctga	180
70744	ggctcagccc ctnaaccggg tggcattctg ggggaggagt gggccacac gntctccac	240
70745	acccggata aagcccgntc gccccagtcg g	271

see P. 16  
for exploration  
of error



09/893,367B

16

<210> 967  
<211> 271  
<212> DNA  
<213> Homo sapiens

<220>  
<221> misc\_feature  
<222> (1)...(271)  
<223> n=a,t,g or c

400> 967

<400>

↑

Insert  
opening  
bracket

Use of n and/or Xaa has been detected in the Sequence Listing.  
Review the Sequence Listing to insure a corresponding  
explanation is presented in the <220> to <223> fields of  
each sequence using n or Xaa.

pyj  
Use of n and/or Xaa has been detected in the Sequence Listing.  
Review the Sequence Listing to insure a corresponding  
explanation is presented in the <220> to <223> fields of  
each sequence using n or Xaa.



RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003  
TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt  
Output Set: N:\CRF4\03052003\I873367B.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 10

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003

TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180  
M:341 Repeated in SeqNo=1  
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:300  
M:341 Repeated in SeqNo=2  
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180  
M:341 Repeated in SeqNo=3  
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:300  
M:341 Repeated in SeqNo=6  
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360  
M:341 Repeated in SeqNo=7  
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480  
M:341 Repeated in SeqNo=8  
L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:120  
M:341 Repeated in SeqNo=9  
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:480  
M:341 Repeated in SeqNo=12  
L:542 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:540  
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:480  
L:830 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:120  
L:4327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:1440  
L:4826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0  
M:341 Repeated in SeqNo=90  
L:5793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:300  
L:8017 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:114 after pos.:1080  
M:341 Repeated in SeqNo=114  
L:8108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 after pos.:180  
L:8146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:180  
L:8165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:118 after pos.:0  
M:341 Repeated in SeqNo=118  
L:8190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:0  
M:341 Repeated in SeqNo=119  
L:8223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:180  
M:341 Repeated in SeqNo=120  
L:8261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:0  
M:341 Repeated in SeqNo=122  
L:8307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:124 after pos.:0  
M:341 Repeated in SeqNo=124  
L:8344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:300  
M:341 Repeated in SeqNo=125  
L:8363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:60  
M:341 Repeated in SeqNo=126  
L:11260 M:254 E: No. of Bases conflict, LENGTH:Input:1440 Counted:1430 SEQ:159  
M:254 Repeated in SeqNo=159  
L:11296 M:252 E: No. of Seq. differs, <211> LENGTH:Input:2520 Found:2510 SEQ:159  
L:12744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175 after pos.:0  
L:12785 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:360

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/873,367B

DATE: 03/05/2003

TIME: 12:07:56

Input Set : N:\EBONY'S\EP.txt

Output Set: N:\CRF4\03052003\I873367B.raw

L:12860 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:179 after pos.:360  
M:341 Repeated in SeqNo=179  
L:12883 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:180 after pos.:180  
M:341 Repeated in SeqNo=180  
L:12922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:181 after pos.:420  
M:341 Repeated in SeqNo=181  
L:12949 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:182 after pos.:240  
L:14893 M:254 E: No. of Bases conflict, LENGTH:Input:9180 Counted:9170 SEQ:230  
M:254 Repeated in SeqNo=230  
L:15081 M:252 E: No. of Seq. differs, <211> LENGTH:Input:14770 Found:14760 SEQ:230  
L:33234 M:254 E: No. of Bases conflict, LENGTH:Input:240 Counted:230 SEQ:313  
M:254 Repeated in SeqNo=313  
L:33260 M:252 E: No. of Seq. differs, <211> LENGTH:Input:1008 Found:998 SEQ:313  
L:34022 M:254 E: No. of Bases conflict, LENGTH:Input:6240 Counted:6230 SEQ:320  
M:254 Repeated in SeqNo=320  
L:34032 M:252 E: No. of Seq. differs, <211> LENGTH:Input:6492 Found:6482 SEQ:320  
L:54723 M:254 E: No. of Bases conflict, LENGTH:Input:2280 Counted:2270 SEQ:647  
M:254 Repeated in SeqNo=647  
L:54901 M:252 E: No. of Seq. differs, <211> LENGTH:Input:7586 Found:7576 SEQ:647  
L:63337 M:254 E: No. of Bases conflict, LENGTH:Input:600 Counted:590 SEQ:790  
M:254 Repeated in SeqNo=790  
L:63429 M:252 E: No. of Seq. differs, <211> LENGTH:Input:3327 Found:3317 SEQ:790  
L:64212 M:254 E: No. of Bases conflict, LENGTH:Input:180 Counted:170 SEQ:810  
M:254 Repeated in SeqNo=810  
L:64294 M:252 E: No. of Seq. differs, <211> LENGTH:Input:2602 Found:2592 SEQ:810  
L:70740 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:967 differs:966



Applicant's copy



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
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Washington, D.C. 20231

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT      PAPER

15

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks**

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). A computer readable form (CRF) of the sequence listing was submitted. However, the CRF could not be processed by the Scientific and Technical Information Center (STIC) for the reason(s) set forth on the attached Raw Sequence Listing Error Report.

Applicant is given ONE MONTH, or THIRTY DAYS, whichever is longer, from the mailing date of this letter within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). In no case may an applicant extend the period for reply beyond the SIX MONTH statutory period. Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Raw Sequence Listing Error Report with the reply.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center number is either (703) 308-4242 or (703) 305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn Smith, whose telephone number is (703) 308-6043. The examiner can normally be reached Monday through Friday from 8 A.M. to 4:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (703) 308-4028.

Any inquiry of a general nature or relating to the status of this application should be directed to Legal Instruments Examiner Tina Plunkett whose telephone number is (703) 305-3524 or to the Technical Center receptionist whose telephone number is (703) 308-0196.

March 21, 2003

Attachment: Raw Sequence Listing Error Report (20 pages)

*Ardin H. Marschel*  
ARDIN H. MARSCHEL  
PRIMARY EXAMINER

*Please forward to Group Art Unit 1631*

Amended Compact Discs

EXAMINER NOTE: THIS PAPER IS AN INTERNAL WORKSHEET ONLY. DO NOT ENCLOSE WITH ANY COMMUNICATION TO THE APPLICANT. ITS PURPOSE IS ONLY THAT OF AN AID IN HIGHLIGHTING A PARTICULAR PROBLEM IN A COMPACT DISC.

THE ATTACHED CD (COPY 1) HAS BEEN REVIEWED BY OIPE FOR COMPLIANCE WITH 37 CFR 1.52(E). ***Please match this CD with the application listed below.***

Date:

5/10/02

Serial No./Control No.

09 873369

Reviewed By:

Williams

Phone: 305 302 18

The compact discs are readable and acceptable.

Copy 1 and Copy 2 of the compact discs are not the same.

The compact discs are unreadable.

The files on the compact discs are not in ASCII.

The compact discs contain at least one virus.

Other

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